

REMARKS

I. STATUS OF THE CLAIMS

Claims 1 and 5-7 are amended herein.

In view of the above, it is respectfully submitted that claims 1-7 are currently pending and under consideration.

II. REJECTION OF CLAIM 6 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

On page 2 of the Office Action, claim 6 is rejected under 35 U.S.C. 112, second paragraph. Claim 6 is amended herein to overcome the rejection.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. REJECTION OF CLAIM 5 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER TERAHARA (USP# 6,271,945)

On page 2 of the Office Action, claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terahara (USP# 6,271,945).

The present invention as recited, for example, in claim 5 relates to a wavelength division multiplexing apparatus comprising "an optical shutoff device to shut off an input of an optical signal not used among the plurality of optical signals."

Terahara discloses an apparatus and method for controlling power levels of individual signal lights of a wavelength division multiplexed (WDM) signal light. In column 9, lines 47-51, Terahara discloses optical attenuators 58 each having a variable attenuation controlled by a control circuit 36.

On page 3 of the Office Action, the Examiner states that Terahara does not specifically disclose that the control circuit 36 is an optical shutoff device to shut off an input of an optical signal, however, "the control circuit 36 may optionally completely attenuate an optical signal with an attenuator 58, thereby shutting off an input of that signal into the optical combiner."

Terahara does not teach or suggest shutting off an input of an optical signal which is not used among a plurality of optical signals to be attenuated. Moreover, Terahara is silent regarding this feature and fails to teach the use of an optical shutoff device. Therefore, Terahara does not teach or suggest the features recited in claim 5 of the present application.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. REJECTION OF CLAIMS 1, 2, 5 AND 6 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER TERAHARA (USP# 6,271,945) IN VIEW OF MIYAZAKI (EP 0 844, 751)

On page 3 of the Office Action, claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terahara (USP# 6,271,945) in view of Miyazaki (EP 0 844 751 A2).

Here, it is noted that the Examiner states that Terahara does not disclose an optical shutoff means (see page 4 of the Office Action), which contradicts the Examiner's statement that "the control circuit 36 may optionally completely attenuate an optical signal with an attenuator 58, thereby shutting off an input of that signal into the optical combiner." (See page 3 of the Office Action, rejection of claim 5, Terahara). Therefore, it is believed that the rejection of claim 5 being unpatentable over Terahara, as indicated on page 2 of the Office Action, is overcome.

Nonetheless, the present invention as recited, for example, in claim 5 (as amended herein) relates to a wavelength division multiplexing apparatus which comprises "a setting unit to allow external designation of a wavelength not to be used among the plurality of optical signals."

Miyazaki discloses an optical transmitter, a terminal station apparatus having an optical transmitter, and an optical communication system employing the terminal station apparatus. More specifically, Miyazaki discloses a shutoff unit for shutting off an optical signal when a parameter relating to the optical signal does not satisfy a predetermined condition. In column 5, lines 34-39, Miyazaki discloses that an optical transmitter shuts off an optical signal of a channel associated with an optical transmitter when a wavelength of the optical signal is beyond a range of allowable wavelengths assigned to the channel.

However, Miyazaki does not teach that the wavelength of the optical signal associated with the optical transmitter, which is beyond the range of allowable wavelengths, is externally set or externally designated to not be used. In the present application, a wavelength not to be used among the plurality of optical signals is externally designated (see, for example, page 8, lines 2-4 of the Applicant's specification). Miyazaki does not teach this feature. Therefore, Miyazaki does not teach or suggest the features recited in claim 5 of the present application.

Accordingly, Terahara and Miyazaki, either alone or in combination, do not teach or suggest the features recited in claim 5 of the present application.

Similar to claim 5, claim 1 recites "means for externally setting a wavelength not used

among the plurality of optical signals," which distinguishes over the cited prior art.

Claims 2 and 6 depend from claims 1 and 5, respectively. Therefore, for at least the reasons that claims 1 and 5 distinguish over the cited prior art, it is respectfully submitted that claims 2 and 6 also distinguish over the cited prior art.

In view of the above, it is respectfully submitted that the rejection is overcome.

V. REJECTION OF CLAIMS 1-7 UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER TAKEHANA ET AL. (JP 10-210008) IN VIEW OF IWANO (JP 07-030520) AND MIYAZAKI ET AL. (EP 0 844 751)

On page 5 of the Office Action, claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehana (JP 10-210008) in view of Iwano (JP 07-030520) and Miyazaki (EP 0 844 751 A2).

The present invention as recited, for example, in claim 4 relates to a wavelength division multiplexing apparatus comprising "a controller which sets the amount of attenuation to a maximum value for the optical attenuator corresponding to the optical signal that has been detected by the wavelength monitoring device as having a wavelength deviation greater than a predetermined value."

Takehana discloses a transmitting device for transmitting wavelength multiple light and a receiving device for the same.

As indicated above, Miyazaki discloses an optical transmitter, a terminal station apparatus having an optical transmitter, and an optical communication system employing the terminal station apparatus.

Iwano discloses an optical fiber amplifier for wavelength multiplex transmission. More specifically, Iwano discloses attenuation rate controllers that compare an optical output level of signal light represented in an electric signal with a desired optical output level to individually control the attenuation rate of the optical attenuators.

However, Iwano does not suggest that the attenuation controllers 40 control by setting an amount of attenuation to a maximum value for an optical attenuator corresponding to an optical signal that has been detected by a wavelength monitoring device as having a wavelength deviation greater than a predetermined value as recited in claim 4 of the present application.

The Examiner attempts to combine the teachings of Takehana, Miyazaki, and Iwano to disclose the features recited in claim 4 of the present application. However, Takehana,

Miyazaki, and Iwano, either alone or in combination, do not teach or suggest the use of a controller which sets an amount of attenuation to a maximum value for an optical attenuator corresponding to an optical signal that has been detected by a wavelength monitoring device as having a wavelength deviation greater than a predetermined value as recited in claim 4 of the present application.

Therefore, Takehana, Miyazaki, and Iwano, either alone or in combination, do not teach or suggest the features recited in claim 4 of the present application.

In light of the comments in this section and section IV above, it is respectfully submitted that Takehana, Miyazaki, and Iwano, either alone or in combination, also do not teach or suggest the features recited in claims 1-3 and 5-7 of the present application.

In view of the above, it is respectfully submitted that the rejection is overcome.

VI. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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